Tik-61.182 Informaatiotekniikan erikoiskurssi II (4 cr) (L)

INFORMATION VISUALIZATION

Spring 2001

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Place: Seminar room T4 in the Computer Science Building

Time: Thursdays 14-16, starting from January 18

Language: English (or Finnish)

Home page: http://www.cis.hut.fi/Opinnot/Tik-61.182/

Sign up using http://wwwtopi.hut.fi/ or send email to Kai (name, ID number, student number, email, . . .)

Preliminary program

- January 18, instructions, general bla bla, election of the first four speakers
- January 25, introductory lecture by Sami *or* the first student presentations
- Student presentations
- May 1, deadline for submitting topics for the research projects
- May 31, deadline for submitting the finished projects

Presentations

- About half an hour
- Dig out the *essentials* in the material and present them in an *understandable* way
- *Hand out* copies of your slides in the beginning of the presentation
- Opponents
  - People giving the next presentation act as opponents
  - The opponents should familiarize themselves with the material prior to the presentation
  - The opponents will comment the presentation and ask some relevant questions
- Cook up three exercises of the topic of the presentation; we will give one of them as a home work to the others

Research projects

- Confirming the topic: a short project plan (about $\frac{1}{2} \times A4$)
- You will have two choises:
  1. Complete the project before the presentation and report the results of your work in the presentation. Confirm the topic at least one week prior to the presentation. Submit a short report (about 2–4 pages) by May 31.
  2. Find a topic by May 1 and write a short abstract on it. After confirming the topic write a research-quality report by May 31.

First presentations

- First chapter of *Card et al*, general overview of the field
- First chapter of *Nielson et al*, overview of the "mathematical" approach to the visualization
- First chapter of *Ware*, human perception approach to the visualization
- *Tufte*, "practical" approach to the visualization

(The first ones can copy/borrow the source material from us)

The grade

All parts, the presentation, the research project and the exercises are given a grade. The whole course is passed with distinction if all parts are passed with distinction.

Bibliography

"Readings in information visualization: using vision to think", written and edited by Stuart K. Card, Jock D. Mackinlay and Ben Shneiderman (1999).

"Scientific visualization: overviews, methodologies, and techniques", Gregory M. Nielson, Hans Hagen and Heinrich Müller (1997).

"Information visualization: design for perception", Colin Ware (1999).

"The visual display of quantitative information", Edward R. Tufte (1983).